

FIBRECELL M1

Water binding capacity and particle size

Water binding capacity (Wasserufnahmevermögens, WAV) was examined through tests related to different periods. For the comparability of the results, the same tests were also carried out on a sugar beet slice.

The samples were prepared in the same way: they were dried at 105°C for 4 days.

1 gram of the sample was put into distilled water and stored there at room temperature without stirring or shaking for different periods (3, 7 and 24 hours). Then the wet test material was separated from the remaining distilled water with a sieve of 45 µm hole-size. The sample was let rest for 5 minutes and then the water-absorbing capacity was calculated. 3 tests were carried out with each sample.

The results received are depicted in the table below:

<i>Sample</i>	<i>Elapsed time (hours)</i>	<i>WAV (g/g sample)</i>
Sugar beet pulp (pellet)	3	3,7 ± 0,2
	7	4,0 ± 0,2
	24	3,5 ± 0,3
FIBRECELL M1 (powder)	3	7,2 ± 0,2
	7	6,9 ± 0,2
	24	7,3 ± 0,4

The granule size was determined by using a 10-gramm sample and it led to the following result:

<i>Granule size (µm)</i>	<i>Ratio within the sample (%)</i>
>280	0,00%
>200	10,83%
>160	16,36%
>80	52,37%
<80	20,44%

As this is a product made of natural basic materials, the products originated from the individual manufactures may show some divergence from the above results.